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CLAIMS

1.   An apparatus for providing a touch sensation to a user of a

simulated real world software program supported by a

5   computer comprising:

a garment covering a portion of the body of the user;

a plurality of electric-powered oscillating motors

embedded within the garment to provide the sensation of

touch on different areas of the body of the user;

10   a control interface with a logic address link to each of

the oscillating motors and a link to a computer executing the

simulated real world software program; and

said control interface activates one or more of said

oscillating motors upon receipt of a command signal

15   generated by said software program that translates into a

logic address corresponding to the link to the one or more

oscillating motors, which corresponds to a particular desired

touch sensation on one or more areas of the body of the user.

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2.   The apparatus for providing a touch sensation to a user of a

simulated real world software program supported by a

computer of Claim 1 further comprising:

a series of logic OR, NOR, NAND and AND gates

5   organized into flip-flop memory circuits and arranged to

form one or more 4 x 16-bit decoders in the control interface;

and

a decision block in the control interface generating a

logic address output to activate the oscillating motor.

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3.   The apparatus for providing a touch sensation to a user of a

simulated real world software program supported by a

computer of Claim 1 wherein the touch sensation simulates a

contact with a graphic representation of a person generated

15   by the software program.

4.   The apparatus for providing a touch sensation to a user of a

simulated real world software program supported by a

computer of Claim 1 wherein the software program is a

20   game entertainment program.

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5. The apparatus for providing a touch sensation to a user of a simulated real world software program supported by a computer of Claim 1 wherein the software program is an adult entertainment program.

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6. The apparatus for providing a touch sensation to a user of a simulated real world software program supported by a computer of Claim 1 wherein the software program is a medical application program.

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7. The apparatus for providing a touch sensation to a user of a simulated real world software program supported by a computer of Claim 1 wherein the portion of the body covered is a limb.

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8.   A system for creating a touch sensation to a user of a

software program supported by a computer comprising:

        a snug fitting garment covering a portion of a

person's body;

5   a plurality of logic addressable electric-powered

oscillating motors embedded into the garment covering a

sector of said body;

        a control interface with a logic address link to each of

the oscillating motors, said control interface connected to

10   said computer; and

        said software program supported by said computer

generating a command signal that translates into the logic

address of one or more of the oscillating motors using the

control interface to activate the one or more motors in said

15   sector that corresponds to a particular desired touch

sensation on one or more contact points within that sector.

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9.   The system for creating a touch sensation to a user of a software program supported by a computer of Claim 8 further comprising a decision block circuit in the control interface that includes a 4x16-bit decoder generating bit

5   values to activate all the motors in a sector corresponding to the logic address for said sector.

10.   The system for creating a touch sensation to a user of a software program supported by a computer of Claim 8

10   further comprising a decision block circuit in the control interface that includes an output matrix 4x16-bit decoder generating high order bit values corresponding to the logic address for specified sectors.

15   11.   The system for creating a touch sensation to a user of a software program supported by a computer of Claim 10 further comprising a decision block circuit in the control interface that includes an output matrix 4x16-bit decoder generating low order bit values corresponding to the logic

20   address for an individual motor within a sector.

12.   The system for creating a touch sensation to a user of a
        software program supported by a computer of Claim 11
        wherein the high order bit and the low order bit values
        determine the logic address to activate a specified motor

5   within a specified sector.

13.   The system for creating a touch sensation to a user of a
        software program supported by a computer of Claim 8
        wherein the touch sensation corresponds to a contact

10   depicted by video data generated by the software program.

14.   The system for creating a touch sensation to a user of a
        software program supported by a computer of Claim 8
        wherein the touch sensation corresponds to a contact

15   depicted by video data processed by the software program.

15.   A method for generating a touch sensation to a person using

a computer application comprising the steps of:

providing a snug fitting garment covering a portion

of the body of said person;

5   embedding a plurality of electric-powered oscillating

motors in the garment covering said portion of the body;

providing a logic addressable link to each of the

oscillating motors from a control interface connected to the

computer application;

10   generating an information packet containing logic

address data specifying one or more of the oscillating motors

to activate on a computer using the computer application;

transmitting the logic address data to the control

interface; and

15   translating the logic address data using a first circuit

in the control interface into the logic address of one or more

oscillating motors to activate.

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16.   The method for generating a touch sensation to a person

using a computer application of Claim 15 further comprising

the steps of:

organizing the plurality of motors into specified

5   sectors covering a portion of the body; and

translating the logic address data using the first

circuit into a logic address for a specified sector to activate

all motors in that sector.

10   17.   The method for generating a touch sensation to a person

·   using a computer application of Claim 16 wherein the

software application is a game.

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18.   The method for generating a touch sensation to a person

using a computer application of Claim 15 further comprising

the steps of:

organizing the plurality of motors into specified

5   sectors covering a portion of the body;

translating the logic address data using the first

circuit into a high order and low order bit value output; and

processing the high order and low order bit value

outputs using a fire decision matrix to translate to a logic

10   address to activate one motor which corresponds to a

particular touch sensation within one sector.

19.   The method for generating a touch sensation to a person

using a computer application of Claim 18 wherein the

15   software application is for medical treatment.

20.   The method for generating a touch sensation to a person

using a computer application of Claim 18 wherein the

software application is for adult entertainment.

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